

**CLAIMS**

What is claimed is:

- 5    1.    An amplifier, comprising:  
         a first stage and a second stage; and  
         a first component and a second component coupled  
         in series between the first and second stages, the  
         first component selected to provide AC decoupling of  
10    the first and second stages and the second component  
         selected to provide for a stability of the amplifier.
2.    The amplifier of claim 1, wherein the first  
         component is an inductor.
- 15           3.    The amplifier of claim 2, wherein the inductor  
         has a value that is selected to decouple the first  
         and second stages.
- 20           4.    The amplifier of claim 3, wherein the value of  
         the inductor is selected in response to a lowest  
         desired operating frequency of the amplifier.
5.    The amplifier of claim 1, wherein the second  
25    component is a resistor.
6.    The amplifier of claim 5, wherein the resistor  
         has a value that is selected to maintain the  
         stability of the amplifier.
- 30           7.    The amplifier of claim 1, wherein the first and  
         second stages comprise a common-source stage and a  
         common-drain stage.

8. The amplifier of claim 7, wherein the first component is an inductor having a value that is selected to decouple a transistor in the common-source stage from a transistor in the common-drain stage.
9. The amplifier of claim 7, wherein the second component is a resistor arranged in series with a capacitor in a feedback circuit for the transistor in common-source stage.
10. The amplifier of claim 9, wherein the resistor is selected to provide the stability in the amplifier by causing a loss in the feedback circuit.
11. A method for decoupling a first and a second stage of an amplifier, comprising the steps of:  
selecting a first component to provide AC decoupling of the first and second stages;  
selecting a second component to provide for a stability of the amplifier; and  
coupling the first and second component in series between the first and second stages.
12. The method of claim 11, wherein the step of selecting a first component comprises the step of selecting an inductor.
13. The method of claim 12, wherein the inductor has a value that is selected to decouple the first and second stages.

14. The method of claim 13, wherein the value of the inductor is selected in response to a lowest desired operating frequency of the amplifier.

5 15. The method of claim 11, wherein the step of selecting a second component comprises the step of selecting a resistor.

10 16. The method of claim 15, wherein the resistor has a value that is selected to maintain the stability of the amplifier.

15 17. The method of claim 11, wherein the step of coupling the first and second component in series between the first and second stages comprises the step of coupling the first and second component in series between a common-source stage and a common-drain stage.

20 18. The method of claim 17, wherein the first component is an inductor having a value that is selected to decouple a transistor in the common-source stage from a transistor in the common-drain stage.

25 19. The method of claim 17, further comprising the step of coupling the second component in series with a capacitor in a feedback circuit for the transistor in common-source stage.

30 20. The method of claim 19, wherein the second component is a resistor that is selected to provide the stability in the amplifier by causing a loss in

- 10 -

the feedback circuit.

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